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10/700,406	11/04/2003	Matt Morano	007573.00014	5734

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EXAMINER	
GRAHAM, CLEMENT B	

ART UNIT	PAPER NUMBER
3691	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/700,406	MORANO ET AL.	
	Examiner	Art Unit	
	Clement B. Graham	3696	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/3/09*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,7-14,16-23 and 26-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7-14,16-23 and 26-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-4, 7-14, 16-23, 26-28, are rejected under 35 U.S.C. 103(a) as being unpatentable over Rosen et al(Hereinafter Rosen U.S Pub: 20030050879 in view Martin U.S Patent 7,089,206 in view of Ascher et al (Hereinafter AscherU.S Pub:20040088242).

As per claims 1, 26, Rosen discloses a distributed trading system for handling a plurality of order requests, each order request comprising parameters under which a participant will buy and/or sell a futures contract, the system comprising:

a messaging bus, a validator coupled to the messaging bus and having a first interface for receiving order requests, wherein the validator implements processes for validating the order requests, and an interface generating a validated order message on the messaging bus related to validated orders and a resynchronization process, wherein each of the validator, RAV component, match engine and persist component is operative to generate a halt message on the message bus in the event of a malfunction or failure, the halt messaqe causes one or more or all of the validator, RAV component, match engine and persist component of the system to halt, and the resynchronization process is operative to recover from such a system halt and reopen the distributed trading system for the buying and/or sellinq of futures contracts (see para 0084-0089 and column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149).

Rosen fail to explicitly teach a risk allocation value (RAV) component coupled to the messaging bus and having an interface for receiving validated order messages from the validator, wherein the RAV component implements processes for evaluating risk associated with an order should that order be completed and preventing completion on an order in response to the RAV component identifying an unacceptable position a match engine coupled to the messaging bus and having an interface for

receiving validated order messages from the RAV component, wherein the match engine implements processes for matching orders based on the order-specified criteria; and a persist component coupled to the messaging bus and having an interface for receiving messages related to orders and trades, wherein the persist component implements processes for persistently storing information related to orders and trades.

However Martin discloses allocation Amount=The Allocation.sub.13 Amount value is the number of shares determined to be allocated to a particular portfolio and risk class. The association amount value may be derived by multiplying the trade volume by the target ratio for an opening position or the close ratio for a closing position Round,LotSize=Round,LotSize represents a function that will round the Allocation Amount according to the minimum allowable rounding size (this size may be predetermined or configurable(note abstract and see column 13 lines 34-40 column 22 lines 14-43).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Rosen to include a risk allocation value (RAV) component coupled to the messaging bus and having an interface for receiving validated order messages from the validator, wherein the RAV component implements processes for evaluating risk associated with an order should that order be completed and preventing completion on an order in response to the RAV component identifying an unacceptable position a match engine coupled to the messaging bus and having an interface for receiving validated order messages from the RAV component, wherein the match engine implements processes for matching orders based on the order-specified criteria; and a persist component coupled to the messaging bus and having an interface for receiving messages related to orders and trades, wherein the persist component implements processes for persistently storing information related to orders and trades taught by Martin in order to allocate a trade of financial instruments among a group of portfolios.

Rosen and Marin fail to explicitly teach wherein the match entwine is configured specifically for a particular class of futures contracts and receives validated order messages only when they are related to the particular class of futures contracts. and wherein the particular class of futures contracts comprise a contract cluster, and wherein responsive to contract clusters being identified, requiring the match engine to consider two or more contracts simultaneously to determine matches.

However Ascher discloses however extracted, the time values for both sides of the matched trade under consideration are compared at step 320 to determine which occurred first in time. In the example

of FIG. 3, a simple comparison of the B Time value to the S Time value at steps will determine which side of the match should be treated as the liquidity maker. If the time value for the buy order and sell order are the same (step 325), then neither side of the transaction is treated as a liquidity maker or liquidity taker (step 335). For example, a liquidity designation field associated with each side of the matched trade may be set to a predetermined value (such as 0) for subsequent use in the fee calculations to designate that neither side of the transaction contributed or removed liquidity. Alternatively, special categories of trades, such as a crossed trade may be treated as having occurred simultaneously and the underlying buy order may be assessed a predetermined fee or price (BTimeQ*CP, where "CP" stands for "cross price") and the underlying sell order may be assessed a predetermined fee or price (STimeQ*CP, where "CP" stands for "cross price") at step 335. (note abstract and see column 4 para 0035 and column 7 para 0056-0057 and column 4 para0031-0033 and column 2 para 0013-0014).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Rosen and Martin to include wherein the match entwine is configured specifically for a particular class of futures contracts and receives validated order messages only when they are related to the particular class of futures contracts. and wherein the particular class of futures contracts comprise a contract cluster, and wherein responsive to contract clusters being identified, requiring the match engine to consider two or more contracts simultaneously to determine matches taught by Ascher in order to match contracts simultaneously.

As per claim 2, Rosen discloses further comprising: a market data service component coupled to the messaging bus and having an interface for receiving messages related to orders and trades, wherein the market data service component implements processes for generating market data related to orders and trades handled by the distributed trading system. (see column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149).

As per claim 3, Rosen discloses wherein the RAV component evaluates risk based on active orders, positions and margins for a particular customer placing the order. (see column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149).

As per claim 4, Rosen discloses wherein the messaging bus comprises a subscriber publisher messaging bus. (see column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149).

As per claim 7, Rosen discloses wherein the match engine publishes messages related to executed trades that are subscribed to by the persist component. (see column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149).

As per claim 8, Rosen discloses wherein the match engine publishes messages related to unmatched orders that are subscribed to by the persist component. (see column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149).

As per claim 9, Rosen discloses wherein the validator subscribes to messages related to market state, and the validator further comprises processes for using the market state to validate orders. (see column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149).

As per claim 10, Rosen discloses wherein the market state messages include information selected from the group consisting of- exchange active, contract active, markets open, user assigned to account, and high/low limits (see column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149).

As per claim 11, Rosen discloses wherein the messages are self-describing. (see column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149).

As per claim 12, Rosen discloses wherein the messages comprise XML messages. (see column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149).

As per claims 13, 28, Rosen discloses a method for implementing trades on an electronic exchange, the method comprising the acts of providing a messaging bus, receiving an order request in a first component, wherein the order request specifies parameters under which a participant will buy and/or sell a futures contract; validating the order request (see column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149) generating by a processor a validated order message on the messaging bus related to validated order request when the order request satisfies pre-specified validation criteria; receiving the validated order message in a second component, evaluating risk associated with the order represented in the validated order message and generating a halt message on the message bus by one or more of the first, second or third components in the event of a component failure or malfunction, halting a selected one or more of the first, second and third components in response to the halt message; and implementing a resynchronization process to recover from said haltinq of the. selected one or more of the first, second and third components (see column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149).

Rosen fail to explicitly teach generating an accepted order message on the messaging bus when the evaluated risk satisfies pre-specified risk criteria, receiving the accepted order message in a third component; matching orders based on the order-specified criteria; generating an unmatched order message on the messaging bus, generating a trade message on the messaging bus corresponding to two or more matched orders, and receiving the messages related to unmatched orders and trades; and persistently storing information related to orders and trades and proposing a settlement price for matched orders based on outside trade data.

However Martin discloses allocation Amount=The Allocation.sub.13 Amount value is the number of shares determined to be allocated to a particular portfolio and risk class. The association amount value may be derived by multiplying the trade volume by the target ratio for an opening position or the close ratio for a closing position Round,LotSize=Round,LotSize represents a function that will round the Allocation Amount according to the minimum allowable rounding size (this size may be predetermined or configurable(note abstract and see column 13 lines 34-40 column 22 lines 14-43).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Rosen to include generating an accepted order message on the messaging bus when the evaluated risk satisfies pre-specified risk criteria, receiving the accepted order message in a third component; matching orders based on the order-specified criteria; generating an unmatched order message on the messaging bus, generating a trade message on the messaging bus corresponding to two or more matched orders, and receiving the messages related to unmatched orders and trades; and persistently storing information related to orders and trades and proposing a settlement price for matched orders based on outside trade data taught by Martin in order to allocate a trade of financial instruments among a group of portfolios.

Rosen and Marin fail to explicitly teach wherein the futures contract includes contract clustering and each contract cluster includes two or more related contracts and each contract cluster is given a unique cluster identification, and wherein matching orders associated with one contract of a particular cluster identification includes simultaneous consideration of the two or more related contracts associated with the particular cluster identification.

However Ascher however extracted, the time values for both sides of the matched trade under consideration are compared at step 320 to determine which occurred first in time. In the example of FIG. 3, a simple comparison of the B Time value to the S Time value at steps will determine which side of the

match should be treated as the liquidity maker. If the time value for the buy order and sell order are the same (step 325), then neither side of the transaction is treated as a liquidity maker or liquidity taker (step 335). For example, a liquidity designation field associated with each side of the matched trade may be set to a predetermined value (such as 0) for subsequent use in the fee calculations to designate that neither side of the transaction contributed or removed liquidity. Alternatively, special categories of trades, such as a crossed trade may be treated as having occurred simultaneously and the underlying buy order may be assessed a predetermined fee or price (BTimeQ*CP, where "CP" stands for "cross price") and the underlying sell order may be assessed a predetermined fee or price (STimeQ*CP, where "CP" stands for "cross price") at step 335. (note abstract and see column 4 para 0035 and column 7 para 0056-0057 and column 4 para0031-0033 and column 2 para 0013-0014).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Rosen and Martin to include wherein the futures contract includes contract clustering and each contract cluster includes two or more related contracts and each contract cluster is given a unique cluster identification, and wherein matching orders associated with one contract of a particular cluster identification includes simultaneous consideration of the two or more related contracts associated with the particular cluster identification taught by Ascher in order to match contracts simultaneously.

As per claim 14, Rosen discloses wherein the validator further comprises processes for reporting errors back to a client (see column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149).

As per claim 16, Rosen discloses further comprising:
a trading floor operation producing a plurality of manually executed trades; and
mechanisms for recording executed trades from the trading floor. (see column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149).

As per claim 17, Rosen discloses the futures exchange of claim 16 where the mechanisms for recording executed trades utilize at least some of the components of the distributed trading system. (see column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149).

As per claim 18, Rosen discloses a market data product comprising market data produced by the market data service component of claim 2. (see column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149).

As per claims 19, 27, Rosen discloses a distributed trading system for handling a plurality of order requests, each order request comprising parameters under which a participant will buy and/or sell a futures contract, the system comprising: a messaging bus; a validator coupled to the messaging bus and having a first interface for receiving order requests, wherein the validator implements processes for validating the order requests, and an interface generating a validated order message on the messaging bus related to validated orders and a resynchronization process, wherein each of the validator, RAV component, match engine and persist component is operative to generate a halt message on the message bus in the event of a malfunction or failure, the halt message causes one or more or all of the validator, RAV component, match engine and persist component of the system to halt, and the resynchronization process is operative to recover from such a system halt and reopen the distributed trading system for the buying and/or sellinq of futures contracts (see para 0084-0089 and column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149).

Rosen fail to explicitly teach a risk allocation value (RAV) component coupled to the messaging bus and having an interface for receiving validated order messages from the validator, wherein the RAV component implements processes for evaluating risk associated with an order should that order be completed, a match engine coupled to the messaging bus and having an interface for receiving validated acceptable order messages from the RAV component, wherein the match engine implements processes for matching orders based on the order- specified criteria, a persist component coupled to the messaging bus and having an interface for receiving messages related to orders and trades, wherein the persist component implements processes for persistently storing information related to orders and trades; and a settlement component coupled to the persist component and having an interface for receiving orders matched by the match engine and an interface for receiving trade data, wherein the settlement component calculates a proposed settlement price and submits the proposed settlement price for publication.

However Martin discloses allocation Amount=The Allocation.sub.13 Amount value is the number of shares determined to be allocated to a particular portfolio and risk class. The association amount value may be derived by multiplying the trade volume by the target ratio for an opening position or the close ratio for a closing position Round,LotSize=Round,LotSize represents a function that will round the Allocation Amount according to the minimum allowable rounding size (this size may be predetermined or configurable(note abstract and see column 13 lines 34-40 column 22 lines 14-43).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Rosen to include risk allocation value (RAV) component coupled to the messaging bus and having an interface for receiving validated order messages from the validator, wherein the RAV component implements processes for evaluating risk associated with an order should that order be completed, a match engine coupled to the messaging bus and having an interface for receiving validated acceptable order messages from the RAV component, wherein the match engine implements processes for matching orders based on the order- specified criteria, a persist component coupled to the messaging bus and having an interface for receiving messages related to orders and trades, wherein the persist component implements processes for persistently storing information related to orders and trades and a settlement component coupled to the persist component and having an interface for receiving orders matched by the match engine and an interface for receiving trade data, wherein the settlement component calculates a proposed settlement price and submits the proposed settlement price for publication taught by Martin in order to allocate a trade of financial instruments among a group of portfolios.

Rosen and Marin fail to explicitly teach wherein the match entwine is configured specifically for a particular class of futures contracts and receives validated order messages only when they are related to the particular class of futures contracts. and wherein the particular class of futures contracts comprise a contract cluster, and wherein responsive to contract clusters being identified, requiring the match engine to consider two or more contracts simultaneously to determine matches.

However Ascher discloses however extracted, the time values for both sides of the matched trade under consideration are compared at step 320 to determine which occurred first in time. In the example of FIG. 3, a simple comparison of the B Time value to the S Time value at steps will determine which side of the match should be treated as the liquidity maker. If the time value for the buy order and sell order are the same (step 325), then neither side of the transaction is treated as a liquidity maker or liquidity taker (step 335). For example, a liquidity designation field associated with each side of the matched trade may be set to a predetermined value (such as 0) for subsequent use in the fee calculations to designate that neither side of the transaction contributed or removed liquidity. Alternatively, special categories of trades, such as a crossed trade may be treated as having occurred simultaneously and the underlying buy order may be assessed a predetermined fee or price (BTimeQ*CP, where "CP" stands for "cross price") and the underlying sell order may be assessed a predetermined fee or price (STimeQ*CP,

where "CP" stands for "cross price") at step 335. (note abstract and see column 4 para 0035 and column 7 para 0056-0057 and column 4 para0031-0033 and column 2 para 0013-0014).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Rosen and Martin to include wherein the match entwine is configured specifically for a particular class of futures contracts and receives validated order messages only when they are related to the particular class of futures contracts. and wherein the particular class of futures contracts comprise a contract cluster, and wherein responsive to contract clusters being identified, requiring the match engine to consider two or more contracts simultaneously to determine matches taught by Ascher in order to match contracts simultaneously.

As per claim 20, Rosen wherein the RAV component is further operative for implementing processes which prevent completion on an order in response to the RAV component identifying an unacceptable position (see para 0084-0089 and column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149).

As per claim 21, Rosen discloses further comprising: a market data service component coupled to the messaging bus and having an interface for receiving messages related to orders and trades, wherein the market data service component implements processes for generating market data related to orders and trades handled by the distributed trading system. (see para 0084-0089 and column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149).

As per claim 22, Rosen discloses 22. (New) The system of claim 19 wherein the RAV component evaluates risk based on active orders, positions and margins for a particular customer placing the order. (see para 0084-0089 and column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149).

As per claim 23, Rosen discloses wherein the messaging bus comprises a subscriber publisher messaging bus (see para 0084-0089 and column 8 para 0065-0067 and para 0068-0074 and column 9-13 para 0089-0149)

Conclusion

RESPONSE TIO ARGUMENTS

3. Applicant's arguments filed 12/3/09 has been fully considered but they are moot in view of new grounds of rejections.

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clement B. Graham whose telephone number is 571-272-6795. The examiner can normally be reached on 7am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Kalinowski can be reached on (571) 272-6771. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Alexander Kalinowski/
Supervisory Patent Examiner, Art Ur 3691

CG
Feb 20, 2010